



Report and Recommendation of the President to the Board of Directors

Project Number: 44239-014
June 2016

Proposed Grant for Additional Financing Kingdom of Bhutan: Air Transport Connectivity Enhancement Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 1 June 2016)

Currency unit	–	ngultrum (Nu)
Nu1.00	=	\$0.01487
\$1.00	=	Nu67.2455

ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
DOAT	–	Department of Air Transport
EIRR	–	economic internal rate of return
IEE	–	initial environmental examination
MOIC	–	Ministry of Information and Communications
PAM	–	project administration manual

NOTE

In this report, "\$" refers to US dollars.

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PROJECT AT A GLANCE

1. Basic Data		Project Number: 44239-014	
Project Name	Air Transport Connectivity Enhancement Project-Additional Financing	Department /Division	SARD/SATC
Country Borrower	Bhutan Kingdom of Bhutan	Executing Agency	Ministry of Information and Communications
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Air transport		4.00
		Total	4.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Climate Change impact on the Project	Low
Regional integration (RCI)	Pillar 1: Cross-border infrastructure Pillar 2: Trade and investment		
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Organizational development	No gender elements (NGE)	✓
5. Poverty Targeting		Location Impact	
Project directly targets poverty	No	Nation-wide	High
6. Risk Categorization:	Low		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: C Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		4.00	
Sovereign Project grant: Asian Development Fund		4.00	
Cofinancing		0.00	
None		0.00	
Counterpart		0.42	
Government		0.42	
Total		4.42	
9. Effective Development Cooperation			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed grant to the Kingdom of Bhutan for the additional financing of the Air Transport Connectivity Enhancement Project.¹

2. The project, together with the original project, will improve safety, security, and capacity at Bumthang, Gelephu, and Yonphula domestic airports by providing infrastructure. The additional financing will further strengthen safety and security, and improve passenger convenience in terms of level of service at these airports. The overall project will support the government's plan to develop a safe, reliable, and efficient air transport system connecting urban and rural centers to help overcome the limitations of road transport, improve accessibility, and promote tourism and high-value agriculture in less-developed regions of the country.

II. THE PROJECT

A. Rationale

3. Bhutan is a mountainous, landlocked country with its socioeconomic development largely depending on a safe, reliable, and efficient transport network. The country has an estimated population of 745,000 and a population density of 19 persons per square kilometer, which is the smallest population and the lowest population density in South Asia.² Bhutan falls within a seismic risk zone with a moderate to high risk level, and has formidable weather conditions. This makes it difficult for the country to achieve economies of scale in service delivery, and costly to build and maintain physical infrastructure, particularly roads. The high external and domestic transport costs and lack of or limited accessibility have constrained the country's economic and social development.

4. The government's Eleventh Five-Year Plan, 2013–2018, highlights the development objectives for the country, focusing on sustainable and equitable socioeconomic development.³ To help achieve the objectives, the government decided to develop a safe, reliable, and efficient network of domestic air transport connecting urban and rural centers. In keeping with this strategy, the government started development and improvement of three domestic airports—in Bumthang, Gelephu, and Yonphula.

5. Air transport activity in Bhutan is set to increase substantially as a result of the government's continued effort to brand and market tourist attractions in the country. The historical trend for total tourist arrivals to Bhutan has shown strong growth, with total visitor arrivals increasing from 23,480 in 2009 to 133,480 in 2014, or a 41.6% increase per year on average.⁴ In view of the anticipated increase in aircraft movements and passenger volume, there is an urgent need to strengthen safety and security, and enhance the capacity of domestic airports.

¹ The revised design and monitoring framework is in Appendix 1.

² Asian Development Bank (ADB). 2015. *Key Indicators for Asia and the Pacific 2015*. Manila.

³ Government of Bhutan, Gross National Happiness Commission. 2013. *Eleventh Five-Year Plan, 2013–2018*. Thimphu.

⁴ Government of Bhutan, Tourism Council of Bhutan. *Bhutan Tourism Monitor Annual Report 2014*. Thimphu.

6. The Asian Development Bank (ADB) approved the Air Transport Connectivity Enhancement Project on 21 June 2012.⁵ The original project was designed to improve basic infrastructure at the three domestic airports, comprising (i) perimeter fencing, access road, apron and taxiway, and car park at Bumthang airport; (ii) perimeter fencing, runway drainage system, flood protection structures, and new terminal at Gelephu airport; and (iii) removal of hills beside runways, reshaping the runway, runway asphalt overlay, access road, car park, extended apron, reconstruction of perimeter fence, and relocation of a stupa at Yonphula airport.⁶ During the appraisal, the total project cost was estimated at \$7.60 million. ADB financed the original project through a grant of \$6.92 million from its Special Funds resources. The government financed \$0.68 million of taxes and duties and office accommodation.

7. The original project is performing well based on the following assessment:⁷

- (i) **Delivery of expected outputs.** The delivery of expected outputs is satisfactory. All civil works at Bumthang and Gelephu domestic airports were completed by April 2015. Remaining civil works in Yonphula will be completed by October 2016, before the financial closing on 31 December 2016. The original project is on track to meet the intended outcome of improved safety, security, and capacity at the three domestic airports.
- (ii) **Satisfactory implementation progress.** The implementation progress is satisfactory. As of March 2016, all contracts had been awarded with a cumulative amount of \$6.90 million (99% of the total grant). The cumulative disbursement was \$4.24 million (61% of the total grant).
- (iii) **Satisfactory compliance with safeguard policy requirements.** The compliance with safeguard policy requirements is satisfactory. Environmental and social safeguards mitigation measures have been implemented in compliance with the grant covenants and the mitigation measures described in the environmental management plan, the resettlement plan, and contract specifications.
- (iv) **Successful management of risks.** The risks have been successfully managed. The design and supervision consultant team, including international and national specialists, has effectively supported the government's project implementation unit by preparing bidding documents and bid evaluation reports, and supervising contract execution.
- (v) **On track rating.** The original project has been rated *on track* in the project performance rating since the grant effectiveness.

8. The original project resolved deficiencies in basic infrastructure such as lack of aircraft parking aprons and taxiways, security fencing, and car parks. Aircraft parking apron and taxiway expansion has enabled an increase in the number of flights during the rainy seasons. Security fencing has prevented live animals from entering into the airport area. All-weather car parks and access roads have improved the level of service for passengers and aviation staff. The installation of drainage and flood protection systems has mitigated the environmental risk of flooding and operational hazards posed by the unfavorable terrain.

⁵ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Grant to the Kingdom of Bhutan for the Air Transport Connectivity Enhancement Project*. Manila (Grant 0295-BHU).

⁶ Project output performance indicators at appraisal included basic infrastructure improvement such as perimeter fencing, runway asphalt overlay, runway repair, access road, and terminal expansion. In the course of project implementation, some indicators have been added, deleted, or changed.

⁷ Summary of Project Performance (accessible from the list of linked documents in Appendix 2).

9. Based on lessons from similar projects in the region, regulatory and institutional capacity is critical to ensuring sustainable development of air transport in the country. Separation of the regulatory and operational functions of the Department of Civil Aviation took place in April 2015; which was supported by ADB technical assistance approved on 5 December 2011.⁸ The Bhutan Civil Aviation Authority serves as the regulator while the Department of Air Transport (DOAT) operates and maintains airports. As a result, DOAT is serving as the project implementation unit while the Ministry of Information and Communications (MOIC) remains the executing agency for the original project.

10. Despite progress, security and service level at the airports remains deficient. The existing passenger terminal in Bumthang has limited capacity and requires expansion. Aviation security staff in Gelephu have no accommodation facility within the airport boundary. In Yonphula, the aircraft apron is elevated by 1 meter from the ground level, posing a safety risk for passengers. The additional financing will address these deficiencies and support the changes in project scope to further improve security and service. It will help consolidate development outcomes by providing physical infrastructure within the airport boundaries. Overall, the project meets eligibility criteria for additional financing. The additional financing will enhance the intended impact of the original project by utilizing the existing implementation arrangements, achieving results expeditiously.

11. The overall project is in line with the strategic objective of providing safe and more efficient movement of people and goods as described in ADB's country partnership strategy, 2014–2018.⁹ The proposed additional financing is included in the country operations business plan, 2016–2018.¹⁰ Investments in developing a safe, reliable, and efficient domestic air transport network connecting urban and rural centers were identified as priorities for the transport sector and are in line with the government's strategies for development of the transport sector.

12. **Regional connectivity.** The government's initiative to develop international and domestic air transport networks will contribute to tourism growth in Bhutan. International visitors who travel to domestic tourism destinations currently must travel by road. Improved air connectivity will provide more variety of transport modes to reach domestic destinations, and enable the marketing of tourist attractions to diversified visitor segments. The project will improve accessibility to less-developed regions of the country. This will help facilitate greater and more equitable coverage of potential benefits from tourism growth.

B. Impact and Outcome

13. The overall aggregate impact will be improved air transport connectivity. The overall aggregate outcome will be improved safety, security, and capacity at three domestic airports in Bumthang, Gelephu, and Yonphula. The impact and outcome statements are unchanged from the original project.

⁸ ADB. 2011. *Technical Assistance to Bhutan for Strengthening Air Transport Regulatory and Operational Performance*. Manila (TA 7945-BHU).

⁹ ADB. 2014. *Country Partnership Strategy: Bhutan, 2014–2018*. Manila.

¹⁰ ADB. 2015. *Country Operations Business Plan: Bhutan, 2016–2018*. Manila.

C. Outputs

14. The output will be improved infrastructure at the three domestic airports, comprising (i) construction of a passenger terminal building at Bumthang airport, (ii) construction of aviation security staff quarters at Gelephu airport, and (iii) installation of a low safety barrier around the apron perimeter at Yonphula airport.

D. Investment and Financing Plans

15. The overall project is estimated to cost \$12.02 million (Table 1).

Table 1: Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Works and equipment	5.13	3.23	8.36
2. Consulting services for design and supervision	0.77	0.20	0.97
3. Taxes and duties	0.60	0.34	0.94
Subtotal (A)	6.50	3.77	10.27
B. Recurrent Costs	0.10	0.10	0.20
C. Contingencies^d	1.00	0.55	1.55
Total (A+B+C)	7.60	4.42	12.02

^a Refers to the original amount. Includes taxes and duties of \$0.60 million financed from government resources.

^b Includes taxes and duties of \$0.34 million to be financed from government resources. The Asian Development Bank (ADB) will finance taxes and duties for small expenditures which may not be tax exempted. The amount of taxes and duties is determined on the grounds that (i) the amount will not present an excessive share of the project investment plan, (ii) the taxes and duties apply only to ADB-financed expenditures, and (iii) the financing of taxes and duties is relevant to the success of the project.

^c In end-2015 prices. Exchange rate used is Nu66.9 = \$1.0.

^d Physical contingencies are computed at 10% for civil works and consulting services contract values. Price contingencies are computed at 1.5% on foreign exchange costs and 5.0% on local currency costs, including provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

16. The government has requested a grant not exceeding \$4 million from ADB's Special Funds resources to help finance the project, including works and equipment, consulting services, and recurrent costs for project management.¹¹ The government's financing will cover recurrent costs for office accommodation in kind, and taxes and duties in the form of an exemption.

17. The financing plan is in Table 2.

¹¹ A country's eligibility for Asian Development Fund (ADF) grants under the revised grant framework is determined by its risk of debt distress. The latest debt sustainability analysis determined that Bhutan had a moderate risk of debt distress and was therefore eligible to receive 50% of its ADF allocation as grants.

Table 2: Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank Special Funds Resources (grant)	6.92	91.05	4.00	90.50	10.92	90.85
Government	0.68	8.95	0.42	9.50	1.10	9.15
Total	7.60	100.00	4.42	100.00	12.02	100.00

^a Refers to the original amount.

Source: Asian Development Bank estimates.

E. Implementation Arrangements

18. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).¹²

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	July 2016–June 2020		
Estimated completion date	30 June 2020	Grant closing date	31 December 2020
Management			
(i) Executing agency	Ministry of Information and Communications		
(ii) Implementation unit	Department of Air Transport		
Procurement	International competitive bidding and/or National competitive bidding	2 contracts	\$3.22 million
	Shopping	1 contract	\$0.01 million
Consulting services	Supervision consultant using quality- and cost-based selection with simplified technical proposals and a 90:10 quality–cost ratio, as the nature of the assignment related to civil aviation requires priority consideration for quality	40 person- months national	\$0.20 million
Advance contracting	Goods, works, and consulting services		
Disbursement	The grant proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank.

Source: Government of Bhutan.

III. DUE DILIGENCE

A. Technical

19. **Engineering.** The engineering design will be based on on-site condition surveys and field investigations, optimizing the required improvement works for economy and construction efficiency in accordance with applicable international design standards. The construction method will use proven technology with standard materials that are compatible with local

¹² Project Administration Manual (accessible from the list of linked documents in Appendix 2).

conditions. To enhance resilience to climatic hazards and disasters, built-in civil engineering measures will be assessed and applied, including flood protection structures, design values of storm frequency and runoff, and drainage systems. Hydrological considerations will be heightened in consultation with the government's hydro-meteorological services division.

20. **Operation and maintenance.** DOAT's Technical Support Division, which comprises four sections—civil, electrical, mechanical, and horticulture and beautification—is currently providing adequate maintenance services for Bhutan's airport facilities. With minimum staffing, it relies on external local contractors for several maintenance functions including some major maintenance activities for airside facilities such as the runway, taxiways, and apron. For current and future maintenance requirements for the domestic airports, DOAT has assigned six full-time maintenance staff—two stationed at each airport in Bumthang and Gelephu, and two at the Yonphula airport once domestic air service operations recommence. Additional and more specialized maintenance staff are seconded from Paro International Airport when and if required.

B. Economic and Financial

21. The economic assessment was carried out in accordance with ADB's Guidelines for the Economic Analysis of Projects.¹³ The proposed additional financing will provide a new terminal facility and associated infrastructure, together with the ongoing project which improved safety, security, and capacity at the three domestic airports. The overall project will help ensure operation of aircraft types with adequate capacity for continued passenger traffic growth and improved service and safety.¹⁴ The economic benefits are derived from the air traffic that will be generated. Economic benefits will include (i) an increase in tourist spending derived from longer stays in the country as more regions are connected by air, and additional tourist arrivals to the country as a result of better accessibility to more parts of the country; (ii) travel time savings for domestic air passengers; (iii) aeronautical revenues received by the airport from new traffic; and (iv) improved aircraft utilization by the airline operator. The total benefit generated by the domestic airport development was apportioned according to the investment made for airport development. The economic internal rate of return (EIRR) for the overall project is estimated at 15.5%. A sensitivity analysis tested the effects of possible unfavorable scenarios resulting from changes in the key parameters that determine the project's costs and benefits. The analysis indicates that the project's economic viability would remain satisfactory even under adverse scenarios, and that a cost increase of 52% for the components under additional financing or decrease in benefits of 21% would be required to reach the cutoff EIRR of 12%. The EIRR of the additional financing alone is 16.1%.

22. The financial assessment was undertaken to assess the viability of the project investment based on revenues from the domestic airport improvements covering the capital and operating costs. Based on the financial projections and evaluation, the project is financially sustainable and will generate sufficient revenue to meet the operation and maintenance expenditure and partially recover the investment made. However, the rate of return on the overall project is negligible. The economic analysis demonstrates social and economic benefits from improved accessibility, including substantial tourism growth potential and local employment generation.¹⁵

¹³ ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

¹⁴ Aircraft types include the ATR 42-500 (short-haul regional airliner) or equivalent.

¹⁵ The use of an ADF grant is appropriate as the rate of return on investment will not be significant, and overall social and economic benefits will accrue for the country.

C. Governance

23. **Policy, legal, and institutional capacity.** DOAT is responsible for the development and management of Bhutan's airports and the operation and maintenance of the country's airports and airfields. The DOAT director reports to the secretary of the MOIC. DOAT has sufficient capacity to undertake infrastructure improvements with past project experience funded primarily by bilateral development partners. Supported by ADB capacity development technical assistance (footnote 8), a new Civil Aviation Act and applicable Bhutan air navigation regulations to reflect current needs have been prepared, effective separation of the regulatory and operating functions of the Department of Civil Aviation has taken place, and technical training in the critical areas of regulatory oversight and airport operations have been provided to DOAT staff, which contributed to further improvement of institutional capacity.

24. **Financial management.** The financial management assessment was conducted in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects¹⁶ and the Financial Due Diligence: A Methodology Note.¹⁷ The financial management assessment considered the capacity of DOAT, including funds flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, DOAT will include a suitably qualified accountant officer in the project implementation unit. It is concluded that the overall premitigation financial management risk of DOAT is moderate. With the proposed action, the overall financial management arrangements are considered satisfactory, and the overall risk is moderate.

25. **Procurement and anticorruption.** All procurement of works and goods will follow ADB's Procurement Guidelines (2015, as amended from time to time). National competitive bidding will follow the government's Procurement Rules and Regulations (2009) with the clarifications and modifications described in the procurement plan. Under the government's Procurement Rules and Regulations (2009), the Public Procurement Policy Division under the Ministry of Finance is the oversight agency for public procurement in the country and is mandated, among other things, to make recommendations to the government to oversight reform of the procurement policy or laws, prepare standard bidding documents, issue technical guidelines and manuals on procurement, liaise with government organizations to develop human resources and professionalism in procurement, and act as the central counterpart for any procurement-related issues in connection with donors. The regulations also recognize that donor rules and procedures on procurement may prevail in the case of donor-funded projects. The Anti-Corruption Commission under the Anti-Corruption Act of Bhutan, enacted in 2006, has authority to take necessary actions to prevent and combat corruption, investigate acts of corruption whenever there is evidence of corruption, sanction corrupt firms from participating in government bids, and monitor implementation of the national anticorruption strategy. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government. The specific policy requirements and supplementary measures are described in the PAM (footnote 12). Preparation of detailed design and bidding documents for the additional financing components is in progress, funded by the original project.

D. Poverty and Social

26. **Poverty reduction and social impact.** Bhutan's poverty rates have been significantly reduced from 31.7% in 2003 to 12.0% in 2012 because of economic growth and the

¹⁶ ADB. 2005. *Guidelines for the Financial Management and Analysis of Projects*. Manila.

¹⁷ ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

government's efforts to improve living standards (footnote 9). ADB's 2013 country diagnostic study for Bhutan identified poor connectivity in rural areas and limited opportunities for decent employment as key factors contributing to poverty and inequality.¹⁸ The project is expected to increase accessibility and create income-generating opportunities for the estimated 100,000 residents living in Bumthang, Sarpang, and Trashigang districts, where the airports are located.¹⁹ The project is expected to support the development of trade and businesses in general and the tourism sector in Bumthang in particular. Project beneficiaries include DOAT; the households expected to occupy the new staff quarters at Gelephu; and the businesses and visitors related to trade, tourism, and services sectors.

27. **Gender.** The new terminal at Bumthang will include universal design features such as segregated toilets for men and women and accessibility ramps. Moreover, the project will benefit the existing 13 female staff working in the three airports, and the prospected eight staff to be hired shortly. Consultations with 104 women and a sample survey on 200 households were conducted in 2011 as part of the poverty and social assessment prepared under the original project. Most women consulted, whose primary income comes from selling agricultural and dairy products, viewed the development of the airports positively and were looking forward to the ensuing business and income-generation opportunities derived from an increase in general business and tourist numbers.

28. **Sexually Transmitted Infections.** The National Sexually Transmitted Infections (STI), HIV and AIDS Prevention and Control Programme is a multisector initiative involving all sections of society in Bhutan and has been operating since 1988, assisted by bilateral and multilateral development agencies and the United Nations. The government has been successful in carrying out awareness campaigns to prevent the health risks associated with infrastructure development. Meanwhile, under the project, contractors will carry out STI/HIV awareness activities for laborers at work sites, which will be monitored by supervision consultant.

E. Safeguards

1. Involuntary Resettlement and Indigenous Peoples

29. **Land acquisition and resettlement.** The project is categorized C for involuntary resettlement. Social due diligence of social impacts related to the additional financing was conducted during project preparation and confirmed that all civil works will be built within DOAT's property boundaries, will not affect private assets, and will not cause physical and economic displacement. A social compliance review of the ongoing investment, which was categorized B for resettlement impacts, was also conducted. It confirmed that the household affected by land acquisition in Gelephu was compensated as per the disclosed resettlement plan and that a stupa at Yonphula was successfully relocated.²⁰ However, it also identified pending actions to address impacts associated with the original development of the airports under the Government of Bhutan's own financing, such as the finalization of the compensation of one household and the reconstruction of a footbridge in Bumthang as well as the identification of an alternative footpath in Yonphula. DOAT agreed on an action plan to address

¹⁸ ADB, Australian Agency for International Development, and Japan International Cooperation Agency. 2013. *Country Diagnostic Studies: Bhutan—Critical Development Constraints*. Manila.

¹⁹ Government of Bhutan, National Statistics Bureau. 2005. *Population and Housing Census of Bhutan 2005*. Thimphu.

²⁰ Resettlement Plan for the Air Transport Connectivity Enhancement Project, Gelephu New Terminal in Bhutan. <http://www.adb.org/sites/default/files/project-document/148765/44239-013-rp-01.pdf>

these issues. More information can be found in the Safeguards Compliance Report disclosed on the ADB website.²¹

30. **Impact on indigenous peoples.** There are no indigenous people in the project area. The civil works under the additional financing will not affect any person and the project is categorized C for indigenous peoples.

2. Environment

31. The additional financing is for construction of a new terminal building at Bumthang airport, security staff quarters at Gelephu airport, and a low safety barrier at Yonphula airport. These activities do not involve major civil works and will all be undertaken within the boundaries of the existing airport facilities. Given this, anticipated environmental impacts of the project are low and, therefore, the project is classified B in accordance with ADB's Safeguard Policy Statement (SPS) (2009). An initial environmental examination (IEE) report has been prepared for the proposed construction of the three structures under the project and disclosed on the ADB website. A safeguards compliance audit has been carried out for the original project, as required by the SPS for existing facilities, as the proposed structures under the project are being added to the existing airports. The safeguards compliance report is also disclosed on the ADB website. Anticipated environmental impacts, which will mainly occur during the construction stage, are occupational health and safety issues, generation of construction waste, generation of dust and noise, and problems of siltation. Solid and liquid waste from the operation of the two buildings will be the main operational-stage issue that will need to be managed. Mitigation measures to address these issues have been recommended in the IEE and the environmental management plan, which will form part of the bidding documents for contractors. Consultations with concerned stakeholders and communities have been completed while preparing the IEE. A grievance redress mechanism has been proposed to address stakeholder and local community concerns during project construction.

32. The institutional system under the original project will continue to be followed for the additional financing components. DOAT's director will serve as the project director responsible for overall implementation of environmental safeguards. The project manager for each airport will serve as the on-site focal point for environmental safeguards under the DOAT director. The supervision consultant team will include an environment specialist to monitor contractor compliance. Annual environmental monitoring reports will be prepared and submitted to ADB for disclosure on the ADB website, as required by ADB's Safeguard Policy Statement for environment category B projects.

F. Risks and Mitigating Measures

33. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.²² Based on the overall assessment, the integrated benefits and impacts are expected to outweigh the costs.

²¹ Environmental and Social Safeguards Compliance Report (accessible from the list of linked documents in Appendix 2).

²² Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Table 4: Summary of Risks and Mitigating Measures

Risk	Mitigating Measures
Delay in releasing government counterpart funds	ADB will cover 100% of total expenditure for works, goods, and services, exclusive of taxes and duties to be exempted by the Government of Bhutan. This will ease the financial burden on the government to provide counterpart funding and, thereby, ensure adequate cash flow during implementation.
Implementation delay	Advance action is being taken by utilizing the existing consulting services contract to ensure timely commencement of engineering design and preparation of bidding documents.

ADB = Asian Development Bank.
Source: Asian Development Bank.

IV. ASSURANCES

34. The government has assured ADB that implementation of the project shall conform to all applicable ADB policies including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and grant documents.

35. The government has agreed with ADB on certain covenants for the project, which are set forth in the grant agreement.

V. RECOMMENDATION

36. I am satisfied that the proposed grant would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the grant not exceeding \$4,000,000 to the Kingdom of Bhutan, from ADB's Special Funds resources for the additional financing of the Air Transport Connectivity Enhancement Project, on terms and conditions that are substantially in accordance with those set forth in the draft grant agreement presented to the Board.

Takehiko Nakao
President

1 June 2016

REVISED DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with			
Current project Air transport connectivity improved (Eleventh Five-Year Plan) ^a			
Overall project Unchanged			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome			
Current project Safety, security, and capacity at three domestic airports in Bumthang, Gelephu, and Yonphula improved	Current project By project completion (2016): Safety standards improved to meet ICAO requirements for aircraft parking, aeronautical communication, and air rescue and firefighting service support facilities Security standards improved to meet ICAO requirements for security cordon around perimeter Capacity for level of service in terminal areas improved from IATA standard grade E to B	(For all indicators) Annual audit and inspection report of the Department of Air Transport	The government does not provide adequate funds for operation and maintenance expenses on time.
Overall project Unchanged	Overall project By project completion (2021): Unchanged		
Outputs			
Current project Infrastructure at three domestic airports in Bumthang, Gelephu, and Yonphula improved	Current project By project completion (2016): 1a. Bumthang airport: Perimeter fencing of 4 km, runway asphalt overlay of 36,000 m ² , a general service and maintenance vehicle, and all-weather access road of 1 km	(For all indicators) Annual audit and inspection report of the Department of Air Transport	Civil works and equipment installation progress is delayed.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<p>Overall project Unchanged</p>	<p>1b. Gelephu airport: Perimeter fencing of 4 km including security gate and guardhouse; air rescue and firefighting service support facilities; a general service and maintenance vehicle; all-weather access road of 2 km; expansion of terminal of 1,000 m², apron and taxiway of 6,000 m², runway drainage system, and flood protection structures; and installation of communication and navigation aids equipment</p> <p>1c. Yonphula airport: Removal of small hills beside runway, provision of air rescue and firefighting service support facilities and a general service and maintenance vehicle, and repair of runway strip drainage of 500 meters</p> <p>Overall project By project completion (2021):</p> <p>1a. Bumthang airport: Perimeter fencing of 3.8 km, all-weather access road of 1.0 km, apron and taxiway of 8,364 m², car park area of 3,077 m², new terminal building</p> <p>1b. Gelephu airport: Perimeter fencing of 2.8 km, security gate, drainage system comprising 198,000 m² of graded area, flood protection system comprising 911 meters of wall and river dredging a volume of 20,385 m³ from the stream on the western side of the airport, new terminal with total floor area of 357 m², aviation security staff quarters</p> <p>1c. Yonphula airport: Remove three hills beside runway, reshape runway,</p>	<p>(For all indicators)</p> <p>Annual audit and inspection report of the Department of Air Transport</p>	<p>Civil works and equipment installation progress is delayed.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	provide asphalt on runway, provide access road of 150 meters, provide new car park, extend apron, remove and reconstruct perimeter fence of 2.4 km, relocate one stupa, install low safety barrier around perimeter of apron		
<p>Key Activities with Milestones (Overall Project)</p> <p>1. Infrastructure at three domestic airports in Bumthang, Gelephu, and Yonphula improved</p> <p>1.1 Complete engineering design, specifications, bill of quantities, cost estimates, and bidding documents by December 2016 (changed)</p> <p>1.2 Engage consultant for supervision by September 2017 (changed)</p> <p>1.3 Procure works and equipment by September 2017 (changed)</p> <p>1.4 Complete all civil works and installation of equipment by June 2020 (changed)</p> <p>Project Management Activities</p> <p>Project implementation unit established by Q2 2016</p>			
<p>Inputs</p> <p>ADB (Grant)</p> <p>\$ 6,920,000 (current project)</p> <p>\$ 4,000,000 (additional financing)</p> <p>\$ 10,920,000 (overall project)</p> <p>Government</p> <p>\$ 680,000 (current project)</p> <p>\$ 420,000 (additional financing)</p> <p>\$ 1,100,000 (overall project)</p>			
<p>Assumptions for Partner Financing</p> <p>Current project</p> <p>None</p> <p>Overall project</p> <p>Unchanged</p>			

IATA = International Air Transport Association, ICAO = International Civil Aviation Organization, km = kilometer, m² = square meter, m³ = cubic meter.

^a Government of Bhutan. *Eleventh Five-Year Plan, 2013–2018*. Thimphu.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://adb.org/Documents/RRPs/?id=44239-014-2>

1. Grant Agreement
2. Sector Assessment (Summary): Transport, and Information and Communication Technology (Air Transport)
3. Project Administration Manual
4. Summary of Project Performance
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Initial Environmental Examination
11. Risk Assessment and Risk Management Plan

Supplementary Documents

12. Environmental and Social Safeguards Compliance Report
13. Project Climate Risk Assessment and Management Report